М.И. Сканави. Глава 1. Арифметика.

(в конце документа даны ответы)

1.001. $$\frac{(7-6{,}35):6{,}5+9{,}9}{\left(1{,}2:36+1{,}2:0{,}25-1\frac{5}{16}\right):\frac{169}{24}}.$$

1.002. $$\left(\left(\frac{7}{9}-\frac{47}{72}\right):1{,}25+\frac{7}{40}\right):(0{,}358-0{,}108)\cdot 1{,}6-\frac{19}{25}.$$

1.003. $$\frac{\left(0{,}5:1{,}25+\frac{7}{5}:1\frac{4}{7}-\frac{3}{11}\right)\cdot 3}{\left(1{,}5+\frac{1}{4}\right):18\frac{1}{3}}.$$

1.004. $$\left(\frac{(2{,}7-0{,}8)\cdot 2\frac{1}{3}}{(5{,}2-1{,}4):\frac{3}{70}}+0{,}125\right):2\frac{1}{2}+0{,}43.$$

1.005. $$\frac{2\frac{3}{4}:1{,}1+3\frac{1}{3}}{2{,}5-0{,}4\cdot 3\frac{1}{3}}:\frac{5}{7}-\frac{\left(2\frac{1}{6}+4{,}5\right)\cdot 0{,}375}{2{,}75-1\frac{1}{2}}.$$

1.006. $$\frac{\left(13{,}75+9\frac{1}{6}\right)\cdot 1{,}2}{\left(10{,}3-8\frac{1}{2}\right)\cdot\frac{5}{9}}+\frac{\left(6{,}8-3\frac{3}{5}\right)\cdot 5\frac{5}{6}}{\left(3\frac{2}{3}-3\frac{1}{6}\right)\cdot 56}-27\frac{1}{6}.$$

1.007. $$\frac{\left(\frac{1}{6}+0{,}1+\frac{1}{15}\right):\left(\frac{1}{6}+0{,}1-\frac{1}{15}\right)\cdot 2{,}52}{\left(0{,}5-\frac{1}{3}+0{,}25-\frac{1}{5}\right):\left(0{,}25-\frac{1}{6}\right)\cdot\frac{7}{13}}.$$

1.008. $$\left(\frac{3\frac{1}{3}+2{,}5}{2{,}5-1\frac{1}{3}}\cdot\frac{4{,}6-2\frac{1}{3}}{4{,}6+2\frac{1}{3}}\cdot 5{,}2\right):\left(\frac{0{,}05}{\frac{1}{7}-0{,}125}+5{,}7\right).$$

1.009. $$\frac{0{,}4+8\left(5-0{,}8\cdot\frac{5}{8}\right)-5:2\frac{1}{2}}{\left(1\frac{7}{8}\cdot 8-\left(8{,}9-2{,}6:\frac{2}{3}\right)\right)\cdot 34\frac{2}{5}}\cdot 90.$$

1.010. $\dfrac{\left(5\frac{4}{45}-4\frac{1}{6}\right):5\frac{8}{15}}{\left(4\frac{2}{3}+0{,}75\right)\cdot 3\frac{9}{13}}\cdot 34\frac{2}{7}+\dfrac{0{,}3:0{,}01}{70}+\dfrac{2}{7}.$

1.011. $\dfrac{\left(\frac{3}{5}+0{,}425-0{,}005\right):0{,}1}{30{,}5+\frac{1}{6}+3\frac{1}{3}}+\dfrac{6\frac{3}{4}+5\frac{1}{2}}{26:3\frac{5}{7}}-0{,}05.$

1.012. $\dfrac{3\frac{1}{3}\cdot 1{,}9+19{,}5:4\frac{1}{2}}{\frac{62}{75}-0{,}16}:\dfrac{3{,}5+4\frac{2}{3}+2\frac{2}{15}}{0{,}5\left(1\frac{1}{20}+4{,}1\right)}.$

1.013. $\dfrac{\left(1\frac{1}{5}:\left(\frac{17}{40}+0{,}6-0{,}005\right)\right)\cdot 1{,}7}{\frac{5}{6}+1\frac{1}{3}-1\frac{23}{30}}+\dfrac{4{,}75+7\frac{1}{2}}{33:4\frac{5}{7}}:0{,}25.$

1.014. $\dfrac{\left(4{,}5\cdot 1\frac{2}{3}-6{,}75\right)\cdot\frac{2}{3}}{\left(3\frac{1}{3}\cdot 0{,}3+5\frac{1}{3}\cdot\frac{1}{8}\right):2\frac{2}{3}}+\dfrac{1\frac{4}{11}\cdot 0{,}22:0{,}3-0{,}96}{\left(0{,}2-\frac{3}{40}\right)\cdot 1{,}6}.$

1.015. $\dfrac{\left(1{,}88+2\frac{3}{25}\right)\cdot\frac{3}{16}}{0{,}625-\frac{13}{18}:\frac{26}{9}}+\dfrac{\left(\frac{0{,}216}{0{,}15}+0{,}56\right):0{,}5}{\left(7{,}7:24\frac{3}{4}+\frac{2}{15}\right)\cdot 4{,}5}.$

1.016. $\left(16\frac{1}{2}-13\frac{7}{9}\right)\cdot\frac{18}{33}+2{,}2\left(\frac{8}{33}-\frac{1}{11}\right)+\frac{2}{11}.$

1.017. $\dfrac{0{,}128:3{,}2+0{,}86}{\frac{5}{6}\cdot 1{,}2+0{,}8}\cdot\dfrac{\left(1\frac{32}{63}-\frac{13}{21}\right)\cdot 3{,}6}{0{,}505\cdot\frac{2}{5}-0{,}002}.$

1.018. $\dfrac{3\frac{1}{3}:10+0{,}175:0{,}35}{1{,}75-1\frac{11}{17}\cdot\frac{51}{56}}-\dfrac{\left(\frac{11}{18}-\frac{1}{15}\right):1{,}4}{\left(0{,}5-\frac{1}{9}\right)\cdot 3}.$

1.019. $\dfrac{0{,}125:0{,}25+1\frac{9}{16}:2{,}5}{(10-22:2{,}3)\cdot 0{,}46+1{,}6}+\left(\frac{17}{20}+1{,}9\right)\cdot 0{,}5.$

1.020. $\left(\left(1\frac{1}{7}-\frac{23}{49}\right):\frac{22}{147}-\left(0{,}6:3\frac{3}{4}\right)2\frac{1}{2}+3{,}75:1\frac{1}{2}\right):2{,}2.$

1.021. $\left(2:3\frac{1}{5}+\left(3\frac{1}{4}:13\right):\frac{2}{3}+\left(2\frac{5}{18}-\frac{17}{36}\right)\cdot\frac{18}{65}\right)\cdot\frac{1}{3}.$

1.022. $\dfrac{0{,}5+\frac{1}{4}+\frac{1}{6}+0{,}125}{\frac{1}{3}+0{,}4+\frac{14}{15}}+\dfrac{(3{,}75-0{,}625)\cdot\frac{48}{125}}{12{,}8\cdot 0{,}25}.$

1.023. $\left(26\frac{2}{3}:6{,}4\right)\cdot\left(19{,}2:3\frac{5}{9}\right)-\dfrac{8\frac{4}{7}:2\frac{26}{77}}{0{,}5:18\frac{2}{3}\cdot 11}-\frac{1}{18}.$

1.024. $\dfrac{0{,}725+0{,}6+\frac{7}{40}+\frac{11}{20}}{0{,}128\cdot 6\frac{1}{4}-0{,}0345:\frac{3}{25}}\cdot 0{,}25.$

1.025. $\left((520\cdot 0{,}43):0{,}26-217+2\frac{3}{7}\right)-\left(31{,}5:12\frac{3}{5}+114\cdot 2\frac{1}{3}+61\frac{1}{2}\right).$

1.026. $\dfrac{(3{,}4-1{,}275)\cdot\frac{16}{17}}{\frac{5}{18}\cdot\left(1\frac{7}{85}+6\frac{2}{17}\right)}+0{,}5\cdot\left(2+\dfrac{12{,}5}{5{,}75+\frac{1}{2}}\right).$

1.027. $\left(\dfrac{3{,}75+2\frac{1}{2}}{2\frac{1}{2}-1{,}875}-\dfrac{2\frac{3}{4}+1{,}5}{2{,}75-1\frac{1}{2}}\right)\cdot\frac{10}{11}.$

1.028. $((21{,}85:43{,}7+8{,}5:3{,}4):4{,}5):1\frac{2}{5}+1\frac{11}{21}.$

1.029. $\left(1\frac{2}{5}+3{,}5:1\frac{1}{4}\right):2\frac{2}{5}+3{,}4:2\frac{1}{8}-0{,}35.$

1.030. $\dfrac{\left(0{,}3275-\left(2\frac{15}{88}+\frac{4}{33}\right):12\frac{2}{9}\right):0{,}07}{(13-0{,}416):6{,}05+1{,}92}.$

1.031. $\dfrac{\frac{5}{6}-\frac{21}{45}}{1\frac{5}{6}}\cdot\dfrac{1{,}125+1\frac{3}{4}-\frac{5}{12}}{0{,}59}.$

1. 032. $\dfrac{\left(1\frac{4}{25}-0,16\right):0,25}{\frac{37}{300}:0,0925}+12,5\cdot 0,64$

1.033. $\dfrac{\left(\frac{5}{8}+2\frac{17}{24}\right):2,5}{\left(1,3+\frac{23}{30}+\frac{4}{11}\right)\cdot\frac{110}{401}}\cdot 0,5.$

1.034. $\dfrac{((7-6,35):6,5+9,9)\cdot\frac{1}{12,8}}{\left(1,2:36+1\frac{1}{5}:0,25-1\frac{5}{6}\right)\cdot 1\frac{1}{4}}:0,125.$

1.035. $\dfrac{\left(2\frac{38}{45}-\frac{1}{15}\right):13\frac{8}{9}+3\frac{3}{65}\cdot\frac{26}{99}}{\left(18\frac{1}{2}-13\frac{7}{9}\right)\cdot\frac{1}{85}}\cdot 0,5.$

1.036. $\dfrac{3,75:1\frac{1}{2}+\left(1,5:3\frac{3}{4}\right)\cdot 2\frac{1}{2}+\left(1\frac{1}{7}-\frac{23}{49}\right):\frac{22}{147}}{2:3\frac{1}{5}+\left(3\frac{1}{4}:13\right):\frac{2}{3}-\left(2\frac{5}{18}-\frac{17}{36}\right)\cdot\frac{18}{65}}.$

1.037. $\dfrac{\left(\left(4,625-\frac{13}{18}\cdot\frac{9}{26}\right):\frac{9}{4}+2,5:1,25:6,75\right):1\frac{53}{68}}{\left(\frac{1}{2}-0,375\right):0,125+\left(\frac{5}{6}-\frac{7}{12}\right):(0,358-1,4796:13,7)}.$

1.038. $\dfrac{\left(\left(3\frac{7}{12}-2\frac{11}{18}+2\frac{1}{24}\right)\cdot 1\frac{5}{31}-\frac{3}{52}\left(3\frac{1}{2}+\frac{5}{6}\right)\right)\cdot 1\frac{7}{13}}{\frac{19}{84}:\left(5\frac{13}{42}-2\frac{13}{28}+\frac{5}{24}\right)+1\frac{2}{27}-\frac{1}{3}\cdot\frac{4}{9}}.$

1.039. $\left(\dfrac{(3,2-1,7):0,003}{\left(\frac{29}{35}-\frac{3}{7}\right)\cdot 4:0,2}-\dfrac{\left(1\frac{13}{20}-1,5\right)\cdot 1,5}{\left(2,44+1\frac{14}{25}\right)\cdot\frac{1}{8}}\right):62\frac{1}{20}+1,364:0,124.$

1.040. $5\frac{4}{7}:\left(8,4\cdot\frac{6}{7}\cdot\left(6-\frac{(2,3+5:6,25)\cdot 7}{8\cdot 0,0125+6,9}\right)-20,384:1,3\right).$

Найти X из пропорции (1.041–1.045):

1.041. $$\frac{\left(4-3{,}5\cdot\left(2\frac{1}{7}-1\frac{1}{5}\right)\right):0{,}16}{X}=\frac{3\frac{2}{7}-\frac{3}{14}:\frac{1}{6}}{41\frac{23}{84}-40\frac{49}{60}}.$$

1.042. $$\frac{1{,}2:0{,}375-0{,}2}{6\frac{4}{25}:15\frac{2}{5}+0{,}8}=\frac{0{,}016:0{,}12+0{,}7}{X}.$$

1.043. $$\frac{0{,}125X}{\left(\frac{19}{24}-\frac{21}{40}\right)\cdot 8\frac{7}{16}}=\frac{\left(1\frac{28}{63}-\frac{17}{21}\right)\cdot 0{,}7}{0{,}675\cdot 2{,}4-0{,}02}.$$

1.044. $$\frac{X}{10{,}5\cdot 0{,}24-15{,}15:7{,}5}=\frac{9\left(1\frac{11}{20}-0{,}945:0{,}9\right)}{1\frac{3}{40}-4\frac{3}{8}:7}.$$

1.045. $$\frac{15{,}2\cdot 0{,}25-48{,}51:14{,}7}{X}=\frac{\left(\frac{13}{44}-\frac{2}{11}-\frac{5}{66}:2\frac{1}{2}\right)\cdot 1\frac{1}{5}}{3{,}2+0{,}8\left(5\frac{1}{2}-3{,}25\right)}.$$

ОТВЕТЫ

1.001. 20. **1.002.** 1. **1.003.** 32. **1.004.** 0,5. **1.005.** 5. **1.006.** 1. **1.007.** 3. **1.008.** 1. **1.009.** 9. **1.010.** 1. **1.011.** 2. **1.012.** 4. **1.013.** 12. **1.014.** 1. **1.015.** 4. **1.016.** 2. **1.017.** 8. **1.018.** 3. **1.019.** 2. **1.020.** 3. **1.021.** 0,5. **1.022.** 1. **1.023.** 10. **1.024.** 1. **1.025.** 3. **1.026.** 3. **1.027.** 6. **1.028.** 2. **1.029.** 3. **1.030.** 0,5. **1.031.** $\frac{5}{6}$. **1.032.** 11. **1.033.** 1. **1.034.** $\frac{5}{3}$. **1.035.** 9. **1.036.** 16. **1.037.** $\frac{17}{27}$. **1.038.** 5. **1.039.** 12. **1.040.** $\frac{15}{14}$. **1.041.** 1. **1.042.** $\frac{1}{3}$. **1.043.** 5. **1.044.** 5. **1.045.** 25. **1.046.** 1. **1.047.** 125. **1.048.** 0,25. **1.049.** 5. **1.050.** –1,5.